AMENDMENT UNDER 37 C.F.R. § 1.116 U.S. Appln. No. 09/784,112

<u>REMARKS</u>

Claims 1-8 and 11-17 are pending in the present application. Claim 10 is objected to under 37 C.F.R. § 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant has cancelled claim 10 without prejudice or disclaimer to obviate the Examiner's objection to the claim. Claims 1-8 and 11-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ito et al. (U.S. Patent No. 5,224,036) ("Ito"). Applicant submits the following arguments to traverse the prior art rejections.

Applicant's invention relates to an anomalous shadow detection system. Applicant refers the Examiner to the detailed description of the invention and the reference in the January 5, 2004 Amendment.

Applicant submits that claim 1 is patentable over Ito. In the Office Action, the Examiner appears to equate C₂ as being analogous to the claimed one or more standard parameters used for distinguishing the suspected anomalous shadow from a normal shadow. See page 5, "iii" of the Final Office Action. The Examiner also states that "[all] of the shadows detected by Ito et al. are suspected anomalous shadows, as parameters extracted from all of the shadows are analyzed in order to determine if each shadow is anomalous (corresponding to the value C₂)." Page 2 (emphasis added). In effect, the Examiner argues that Ito discloses detecting suspected anomalous shadows and then using the characteristic value C₂ to determine if the suspected anomalous shadow is an anomalous shadow. Thus, the characteristic value C₂ is not used to for distinguishing the suspected anomalous shadow from a normal shadow since the characteristic value C₂ is used for shadows which are already considered to be suspected anomalous shadows. This is consistent with Ito because the reference makes no mention of the characteristic value C₂

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in the section of which discloses making a judgment as to whether the predetermined image element P_0 is or is not in the shadow of a tumor. Col. 7, line 16 - col. 8, line 63. Thus, Ito fails to disclose "one or more standard parameters concerning the suspected anomalous shadow together with the information including at least the information identifying the suspected anomalous shadow, wherein each of said one or more standard parameters is a parameter used for distinguishing the suspected anomalous shadow from a normal shadow," in combination with other elements of claim 1. For at least the above reasons, claim 1 is patentable.

In Ito, the shadow extracted by the shadow extraction means 40c is extracted without any judgment in the sense of the present invention rendered thereon. In Ito, the judgment described in column 8, lines 58-63 quoted by the Examiner is concerned with merely whether the extracted shadow is a tumor (including benign and malignant tumors). In other words, there is no judgment regarding the probability that the extracted shadow is a malignant tumor in column 8, lines 58-63, as is the case in the invention. *See* claims 5, 7, 11, and 13.

Claims 2-8, 11-14, 17/1-8, and 17/11-14 which depend from claim 1, are patentable for at least the reasons submitted for claim 1.

Applicant also submits that the Examiner's characterization of claims 3, 7, and 13 as not requiring "the image output means further outputs values(s) of one or more standard parameters" as recited in claim 1, is incorrect. Apparently, the Examiner views claim 3 as outputting either:

i) the one or more standard parameters (claim 1) or ii) the certainty of detection (claim 3). To the contrary, claim 3 expressly recites "[a]n anomalous shadow detection system according to Claim 1, wherein the image output means <u>further outputs</u> certainty of detection . . . ". Moreover,

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claims 7 and 13 each recite the one or more standard parameters and the certainty of detection,

separately. Therefore, the Examiner is not correct in his characterization of claims 3, 7, and 13.

For reasons similar to those submitted for claim 1, claim 15 and its dependent claims 16,

17/15, and 17/16 are patentable because Ito fails to disclose or suggest, inter alia, the image

output means further outputs certainty of detection of the suspected anomalous shadow together

with the information including the information identifying the suspected anomalous shadow.

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

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